

# OFFICIAL PUBLICATIONS OF CORNELL UNIVERSITY

VOLUME II

NUMBER 13

NEW YORK STATE COLLEGE OF  
AGRICULTURE  
ANNOUNCEMENT OF THE FIRST  
SUMMER SCHOOL IN AGRICULTURE  
JULY 6--AUGUST 16  
1911

JULY 1, 1911  
PUBLISHED BY CORNELL UNIVERSITY  
ITHACA, NEW YORK

## CALENDAR

In order to secure the full number of exercises announced for the session, it is necessary that all work begin promptly on Thursday morning, July 6. Students are therefore urged to reach Ithaca in time to be present at the first exercise in each class. If possible, they should register on Wednesday; if not, they should register on Thursday during the hours not occupied in class work.

July 5, Wednesday, 9 a. m. to 5 p. m.—Registration first at Office of Registrar, Morrill Hall, and then with the Secretary, College of Agriculture, Main Building, Room 122.

July 6, Thursday.—Instruction begins at times and places announced under each course. Registration continued.

July 6, Thursday, 8 p. m., and following Thursdays.—Musical Recital, Sage Chapel.

July 7, Friday, 8 p. m.—General Assembly of all summer students, addressed by Dean L. H. Bailey. Barnes Hall.

July 10, Monday, 8 p. m.—First Lecture in Monday evening course in regular University Summer Session. Continued on following Mondays. Rockefeller Hall.

July 11, Tuesday, before 5 p. m.—Last day for the payment of tuition fees at the Treasurer's Office, 1 Morrill Hall.

July 11, Tuesday, 8 p. m., and following Tuesdays.—Musical Recital, Sage Chapel.

July 12, Wednesday, 7.30 p. m., and following Wednesdays.—General lecture and conference on agricultural topics. College of Agriculture, Main 292.

August 15, 16, Tuesday and Wednesday.—New York State Examinations for Teachers' Certificates.

It is expected that a special training conference for rural leaders, to continue for one or two weeks, will be held at the College of Agriculture some time during the Summer School. After June 1st, definite information may be had on application to the Secretary, College of Agriculture.

# CORNELL UNIVERSITY, SUMMER SCHOOL IN AGRICULTURE, 1911

## OFFICERS

Jacob Gould Schurman, LL.D., President of the University.  
Liberty Hyde Bailey, LL.D., Director of the College of Agriculture  
David Fletcher Hoy, M.S., Registrar of the University.  
Albert Russell Mann, B.S.A., Secretary to the College of Agriculture.

## FACULTY

The members of the faculty are, except when the contrary is indicated, regular members of the Cornell University staff of instruction.

Henry Hiram Wing, M.S. in Agr., Professor of Animal Husbandry.  
John Lemuel Stone, B.Agr., Professor of Farm Practice.  
James Edward Rice, B.S.A., Professor of Poultry Husbandry.  
George Walter Cavanaugh, B.S., Professor of Chemistry in its Relations with Agriculture.  
Elmer Otterbein Fippin, B.S.A., Professor of Soil Technology.  
George Frederick Warren, Ph.D., Professor of Farm Management and Farm Crops.  
Charles Scoon Wilson, A.B., M.S.A., Professor of Pomology.  
Wilford Murray Wilson, M.D., Professor of Meteorology (detailed by Weather Bureau, United States Department of Agriculture).  
Layton S. Hawkins, A.M., Head of Department of Science, State Normal School, Cortland.  
Merritt Wesley Harper, M.S., Assistant Professor of Animal Husbandry.  
Clarence Arthur Rogers, M.S.A., Assistant Professor of Poultry Husbandry.  
Paul J. White, A.B., M.S.A., Ph.D., Assistant Professor of Farm Crops.  
Glenn Washington Herrick, B.S.A., Assistant Professor of Economic Entomology.  
Harold Ellis Ross, B.S.A., M.S.A., Assistant Professor of Dairy Industry.  
Elmer Seth Savage, B. S. A., M. S. A., Assistant Professor of Animal Husbandry.  
Lewis Josephus Cross, B.A., Instructor in Agricultural Chemistry.  
Roy David Anthony, B.S. in Agr., Instructor in Pomology.  
Mortier Franklin Barrus, A.B., Instructor in Plant Pathology.  
Alice Gertrude McCloskey, A.B., Lecturer in Nature-Study.  
Flora Rose, B.S., M.A., Lecturer in Home Economics.  
Martha Van Rensselaer, A.B., Lecturer in Home Economics.  
Anna Botsford Comstock, B.S., Lecturer in Nature-Study.  
Harry O. Buckman, M. S. A., Assistant in Soil Technology.  
Ray Eugene Deuel, B.S. in Agr., Assistant in Animal Husbandry.  
Earl Whitney Benjamin, Assistant in Poultry Husbandry.  
Charles Edward Hunn, Gardener.



## OBJECT OF THE SUMMER SCHOOL IN AGRICULTURE

The object of the Summer School in Agriculture is to train persons who desire to teach agriculture, including nature-study and home economics. The courses are open not only to teachers but also to other qualified persons who may wish to avail themselves of the opportunities offered.

Instruction is given in three groups of courses, in any one of which a person may spend all his time. Opportunity is provided for persons taking one of the groups to elect some work in one of the other groups.

1. **Agriculture.** In this group, instruction is offered in soils, agricultural chemistry, farm crops, animal husbandry, dairy industry, poultry husbandry, pomology, farm management, entomology, plant pathology, and meteorology.

2. **Nature-Study and Elementary Agriculture.** The subjects included in this group are the history development, and pedagogics of the nature-study idea; school gardens; field trips; collection, preparation, and preservation of materials; rural education; nature literature; and specific lessons in elementary agriculture and nature-study as outlined in the syllabus issued by the New York State Department of Education for 1911-12.

3. **Home Economics.** This group covers the general subjects of foods, human nutrition, principles of household economy, and household sanitation.

The Summer School in Agriculture is distinct from the regular Summer Session in Cornell University. Any of the courses in the regular University Summer Session, however, may be elected by qualified students registered in the Summer School in Agriculture. For a course thus elected by residents of New York State, a fee of \$15 will be charged; for two or more courses, a fee of \$25 will be charged. Announcements of the University Summer Session may be had on application to the Registrar, Cornell University.

## ADMISSION, ATTENDANCE, REGISTRATION

There is no examination for admission to the Summer School in Agriculture. Each person, however, must satisfy the instructor in charge of any course that he is qualified to pursue the work of the course. Any duly registered student in the Summer School in Agriculture may visit other classes than those for which he is specifically registered.

All students are required to register first at the office of the University Registrar in Morrill Hall. They may register on Wednesday, July 5, between 9 a. m. and 5 p. m., or on the day of their arrival, if they reach Ithaca later than July 5. Registration on July 5 is urged. No registration later than July 12 will be permitted. Class exercises begin at 8 a. m. Thursday, July 6. The Registrar's office is open from 9 a. m. to 4 p. m., every day, except Saturday, when it is closed at noon. Students will report at the office of the Secretary, College of Agriculture, room 122, Main Building, immediately after registering with the Registrar of the University.

## TUITION FEE

Tuition in the Summer School in Agriculture is free to residents of New York State. Non-residents will be charged a tuition fee of \$25, whether one subject or more be taken. This must be paid at the office of the Treasurer,

Room 1, Morrill Hall, within five days after registration day. In case of withdrawal, for reasons satisfactory to the Treasurer and the Registrar, within five days from the first registration day, the tuition may be refunded and the charge cancelled. In case of withdrawal within two weeks of the first registration day, one-half the tuition paid may be refunded.

### LABORATORY FEES

Fees to cover the cost of materials used will be charged as follows: poultry husbandry, \$1.00; plant diseases, \$.75; insects, \$.50; home economics A, \$4; home economics B, \$3. Fee cards will be secured at the first class-period in each of the courses concerned. The receipted fee cards must be returned to the instructor in charge of the course within two days after the beginning of the course.

### ACADEMIC CREDIT FOR WORK

Academic credit will be allowed for the work in nature-study and home economics as announced in connection with those courses. On the completion of the agriculture group, one unit in entrance agriculture will be given to those persons who pass an examination for that purpose at the close of the Summer School.

**Certificates for Work.** Students in the Summer School who are not matriculated in the University may receive certificates of attendance and of work satisfactorily performed. Application for them must be made before August 16, and the applicant must leave at the office of the Registrar a large sized envelope stamped and directed to his home address. The certificate will then be forwarded by mail.

### COST OF LIVING

The cost of board and furnished room in Ithaca during the Summer School runs from \$5.50 a week upwards. In some cases the cost has been reduced to \$5, or even to \$4.50, but it is not safe to count on less than \$5.

The price of a single furnished room may be as low as \$1 a week. The prices advance with the size and location of the rooms.

The price of table board runs from \$4 and \$4.50 in boarding houses, to \$7 and \$10 at the hotels. Living at hotels costs from \$10.50 up.

The University has one residence hall, Sage College, with an annex, Sage Cottage. This will be open for women throughout the Summer School. Married men accompanied by their wives may be lodged in Sage Cottage, where the first and second floors will be reserved for them. As the great majority of the persons living in these buildings are attending the University for serious work, it is necessary that the rooms and halls should be quiet during the hours of rest. Persons unwilling to conform to reasonable regulations for securing this quiet are not wanted in the buildings. The price of rooms in Sage College is from \$1.25 to \$5.50 a week, according to location, and of table board \$5.00. The capacity of the building is usually engaged in advance, and early application is therefore advisable.

Application should be made to the Manager of Sage College, Ithaca, N. Y. Every application for a room to be reserved must be accompanied by a



deposit of \$5, otherwise the application is not registered. The amount of this deposit is deducted from the rent if the room assigned be occupied by the applicant; it is refunded if the applicant gives formal notice to the manager on or before June 15th, that she desires to withdraw the application.

Without permission from the Director of the University Summer Session, no one will be allowed to room in Sage College or Sage Cottage during the summer unless registered in the University Summer Session or in the Summer School in Agriculture.

The whole expense of attendance at the Summer School, not including laboratory fees, may be estimated at \$65 to \$85.

### THE LIBRARIES

The University Library is open on week days from 9 a. m. to 5 p. m., except Saturday, when it closes at 1 p. m. In this are housed the main library, containing about three hundred and ninety thousand volumes, and most of the seminary and special libraries. The main reading room affords accommodations for over two hundred readers, and contains a selected library of over 8,000 volumes of reference works. Adjacent to it is the periodical room in which are kept the current numbers of about five hundred journals in various fields of knowledge. These rooms are open to all students. Students properly qualified are allowed the use of the seminary rooms and of the books in them. The main collection is primarily a library of reference for use in the building. Students are, however, allowed to a limited extent to take out books for home use. Persons wishing this privilege must make a deposit of \$5, which will be refunded upon the return of all books taken out.

The library of the College of Agriculture, on the first floor of the main building, is open on week days from 9 a. m. to 5 p. m., except Saturday, when it closes at 1 p. m. In it will be found a large collection of bulletins and reports of experiment stations, reference books on agriculture and country life, agricultural periodicals, and the like.

### LECTURES, MUSICAL RECITALS, EXCURSIONS

In addition to the regular class-room work, there will be lectures before the University Summer Session on topics of general interest on Monday evenings throughout the Session. The lectures are open to students in the Summer School in Agriculture. On Wednesday evening of each week throughout the School, a special lecture on an agricultural or country life subject of general interest will be given in the main building of the College of Agriculture, Room 292, at 7.30 o'clock. It will be followed at 8.30 by an informal conference.

Musical recitals will be given on Tuesday and Thursday evenings in the Sage Chapel.

Occasional special excursions will be arranged, announcement of which will be made from week to week.

### RAILROAD ROUTES AND RATES

Ithaca is reached by either the Lehigh Valley or the Lackawanna railroad. By the latter, a branch leaves the main line at Owego. Through trains run

from New York and Buffalo on the Lehigh and through sleeping cars run daily from New York on both roads. From Philadelphia, Baltimore, Washington, and the South, via the Baltimore & Ohio, the Philadelphia & Reading connects with the Lehigh at Bethlehem. On the Lehigh, through trains for Ithaca connect with the New York Central at Auburn and Canastota, and with the Pennsylvania (Northern Central) and the Erie at Elmira.

From points in Trunk Line and New England Passenger Association territory (east of Pittsburg and Buffalo and north of Washington, D. C.), a special railroad rate of a fare and three-fifths will be granted to students of the Summer School. This reduction can be obtained only by application for the proper certificate (not receipt), when buying a ticket to Ithaca, and upon condition that at least one hundred certificates are presented to the Registrar at Ithaca. The University can not guarantee the reduction to any one. In previous years, however, the condition always has been met in the University Summer Session, and the reduced fare obtained by holders of certificates.

To secure the reduced rate for the return journey, it is necessary to buy a regular ticket from the starting point to Ithaca, not earlier than July 2nd nor later than July 8th. When purchasing the ticket, ask for a certificate, not a receipt. Persons starting from a point outside the territory within which the reduced rate is granted, may buy a ticket to some point in this territory and then secure a ticket to Ithaca, getting the proper certificate. It is best to find out about this matter a week or so before the time when it is intended to start.

If the full number of certificates is presented to the Registrar at Ithaca, students will then be entitled, upon payment of twenty-five cents, to receive an order entitling them to return tickets to the point of starting, for three-fifths of the fare paid in coming to Ithaca. This privilege begins August 13th and expires August 19th. Holders of certificates should present them when they register at the University.

For further information, and for directions as to form of application, apply to the Registrar, Cornell University, or to railroad agent at home office.

## COURSES OF INSTRUCTION

The courses of instruction are announced in three distinct groups or schools, namely, agriculture, nature-study, and elementary agriculture, and home economics. Persons in the Summer School may specialize in any one of these groups, or may elect such courses from any of them as they may be able to schedule and are qualified to pursue. Ordinarily it will be advantageous to confine one's attention chiefly to the subjects in one of the groups, and return another summer if instruction in a second group is desired.

### GROUP I. AGRICULTURE

Each of the following courses continues for but a short period, as is indicated in the announcement of the course. These courses have been scheduled in such a way as to make a consecutive program.

**Soils.** Lectures, daily at 8, Main Building 292. Laboratory, M T Th F, 2-4.30, W S, 10-12.30, Agronomy Building 42. July 6-12. Professor FIPPIN and Mr. BUCKMAN.



A discussion of the character and handling of soils. The following are the topics of the lectures to be given. (1) The formation, classification, and distribution of soils. (2) Physical properties of soil. (3) Soil moisture and its regulation, including drainage and the mulch. (4) Soil amendments, including lime, organic matter, and organisms. (5) Fertilizers and manures. (6) Cultural practice, including tillage, crop adaptation, and crop rotation. The laboratory work, consisting of field excursions and indoor exercises, will deal with important phases of these discussions.

**Agricultural Chemistry.** Lectures, daily at 8, Morse 1. Laboratory, M T Th F, 2-4.30, Morse 1. July 13-19. Professor CAVANAUGH and Mr. CROSS.

A discussion of the relations of chemistry to agriculture, including the sources of fertilizing materials, their preparation for use, and a study of the various forms of lime.

**Cows.** Lectures, daily at 9, Animal Husbandry Lecture Room. Practice, M T Th F, 10-12.30, Judging Pavilion. July 6-12. Professor WING, Assistant Professor SAVAGE, and Mr. DEUEL.

A discussion of the principles of feeding dairy cattle, the principles of breeding animals, and the historical development of the leading breeds of dairy cattle.

**Milk.** Lectures, daily at 9, Dairy Building 222. Laboratory, daily at 10-12.30, Dairy Building 232. July 13-15. Assistant Professor ROSS and Mr. ———.

A discussion of the constituents of milk and their interrelations; the Babcock test for butter-fat; the lactometer and its use in detecting adulterations. The laboratory work covers the methods outlined in the lectures.

**Horses.** Lectures, daily at 9, Animal Husbandry Lecture Room. Practice daily except S, 10-12.30, Judging Pavilion. July 17-22. Assistant Professor HARPER and Mr. DEUEL.

A discussion of the principles of breeding, judging, and training of horses, with an historical discussion of the more important breeds.

**Poultry Husbandry.** Lectures, daily at 9, Dairy Building, 222. Laboratory daily except S, 10-12.30, Main 202. July 24-29. Professor RICE, Assistant Professor ROGERS, and Mr. BENJAMIN.

The subjects discussed in the lectures are: (1) feeding for egg production and fattening; (2) incubating and brooding; (3) feeding chickens; (4) breeding; (5) the breeds; (6) poultry-house construction. The laboratory exercises include: (1) study of poultry; (2) study of the egg; (3) mixing rations and study of feeds; (4) grading eggs; (5) study of the breeds. Laboratory fee, \$1.00.

**Farm Crops.** Lectures, daily at 8, Main Building 292. Laboratory, M T Th F, 2-4.30, S, 10-12.30, Agronomy Laboratory 202. July 20-August 2. Dr. WHITE and Professor STONE.

A discussion of corn, weeds, potatoes, clover, alfalfa, timothy, and pastures.

**Pomology.** Lectures, daily at 9, Dairy Building, 222. Laboratory, daily at 10-12.30, Main 202. July 31-August 5. Professor C. S. WILSON and Mr. ANTHONY.



A discussion of the methods of propagating the fruits, and the principles of budding and grafting; the practice of planting, spraying, and pruning fruit trees; the varieties, the exhibition, and the packing of fruits.

**Insects.** Lectures, daily at 8, Main Building 292. Laboratory, M T Th F, 2-4.30, Main 392. August 3-9. Assistant Professor HERRICK.

A discussion of the structure and characteristics of insects, with a brief consideration of the life-history and habits of some of the more commonly injurious forms, together with the most approved methods of combating them. In the laboratory and field, an opportunity will be given to become acquainted with the injuries and habits of the insects. Laboratory fee, \$.50.

**Plant Diseases.** Lectures, daily at 8, Main Building 292. Laboratory, M T Th F, 2-4.30, Agronomy Building 302. August 10-16. Mr. BARRUS and Mr. ———.

The lectures will discuss potato blights, potato scab, peach leaf curl, apple scab, and corn smut, with practical means of control. In the laboratory the life history of the causal organism will be studied with the microscope. Its effect upon the host will be carefully noted by examination of specimens. The relation of the control of the disease to the life history of the causal organism will be explained. Laboratory fee, \$.75.

**Farm Management.** Lectures, daily at 9, Dairy Building 222. Laboratory, M T W, 10-12.30, Agronomy Building 202. August 7-9 and 14-16. Professor WARREN.

Discussions and laboratory work on cropping systems, types of farming, farm accounts, and organization and management of some successful farms.

**Weather.** Lectures, daily at 9, Dairy Building, 222. Laboratory and conference, daily at 10-12.30, Dairy Building 222. August 10-12. Professor W. M. WILSON.

This course offers suggestions as to subjects for meteorological study that come within the scope of the facilities afforded by the public schools; where and how data may be obtained for school use; the construction and interpretation of weather maps and climatological charts; weather forecasting from weather maps and from local observations; use and care of meteorological instruments; the general principles of the circulation of the atmosphere; the development, progression, and conditions that attend cyclones, hurricanes, and special storms; cloud studies, air drainage, frost, and methods of protection. Special attention is given to the work of the U. S. Weather Bureau in cooperation with the public schools.

## SUMMER SCHOOL IN AGRICULTURE

1911

## Tabular Schedule of Subjects and dates in Group 1, Agriculture

July	8-9	9-10	10-12.30	2-4.30
6	Soils	Cows	Cows	Soils
7	Soils	Cows	Cows	Soils
8	Soils	Cows	Soils	X
10	Soils	Cows	Cows	Soils
11	Soils	Cows	Cows	Soils
12	Soils	Cows	Soils	X
13	Agr. Chem.	Milk	Milk	Agr. Chem.
14	Agr. Chem.	Milk	Milk	Agr. Chem.
15	Agr. Chem.	Milk	Milk	X
17	Agr. Chem.	Horses	Horses	Agr. Chem.
18	Agr. Chem.	Horses	Horses	Agr. Chem.
19	Agr. Chem.	Horses	Horses	X
20	Corn	Horses	Horses	Corn
21	Corn	Horses	Horses	Corn
22	Weeds	Horses	Weeds	X
24	Weeds	Poultry Hus.	Poultry Hus.	Weeds
25	Potatoes	Poultry Hus.	Poultry Hus.	Potatoes
26	Potatoes	Poultry Hus.	Poultry Hus.	X
27	Clover	Poultry Hus.	Poultry Hus.	Clover
28	Clover	Poultry Hus.	Poultry Hus.	Clover
29	Alfalfa	Poultry Hus.	Alfalfa	X
31	Timothy	Pomology	Pomology	Pastures
Aug.				
1	Pastures	Pomology	Pomology	Pastures
2	Pastures	Pomology	Pomology	X
3	Insects	Pomology	Pomology	Insects
4	Insects	Pomology	Pomology	Insects
5	Insects	Pomology	Pomology	X
7	Insects	Farm Man.	Farm Man.	Insects
8	Insects	Farm Man.	Farm Man.	Insects
9	Insects	Farm Man.	Farm Man.	X
10	Plant Diseases	Weather	Weather	Plant Diseases
11	Plant Diseases	Weather	Weather	Plant Diseases
12	Plant Diseases	Weather	Weather	X
14	Plant Diseases	Farm Man.	Farm Man.	Plant Diseases
15	Plant Diseases	Farm Man.	Farm Man.	Plant Diseases
16	Plant Diseases	Farm Man.	Farm Man.	X

The afternoons indicated by X are Wednesday and Saturday, and are left vacant for the students personal use.



**GROUP II. NATURE-STUDY AND ELEMENTARY AGRICULTURE**

Each of the following courses continues throughout the six weeks of the Summer School.

**A. The Nature-Study Idea.** Lectures, M W F, 11, Main 392. Professor HAWKINS and Mrs. COMSTOCK.

Lectures on the history and development of the nature-study idea; its educational importance; its pedagogics; arrangement of courses of study; the field trip; the school-garden; the procuring and using of material; the literature of the subject; other topics of fundamental importance. Special attention will be given to the course of study outlined in the New York State Syllabus of 1910. In connection with this course, opportunity will be given to prepare the material and literature of one or more special topics.

**B. Nature-Study Material.** Field and laboratory work, M W F, 2-5, Main 302. Professor HAWKINS and Mrs. COMSTOCK.

Some of the topics forming the basis of the work are study of natural objects in the field; collection of material; preparation and preservation of materials; equipping and maintaining aquaria, vivaria, terraria, etc.; organizing and maintaining school museums; outlining and conducting field and laboratory lessons. Special attention will be given to the type studies for 1911 in the New York State Syllabus of 1910. While this course is planned especially to aid teachers and supervisors, it will also be of value to any others interested in outdoor study. The greater part of each exercise will be held in the field.

Opportunity will be provided for persons who desire to secure practical work in the making of school-gardens. Mr. HUNN.

Nature-study students will unite with the botany students in three all-day excursions on Saturday. (See under announcement of botany in University Summer Session, page 41).

Students who satisfactorily complete courses A and B and participate in at least two of the three Saturday excursions, will receive three hours' credit.

**C. Rural Education.** Lectures and conferences, T Th, 11, Main 392. Professor HAWKINS and others.

This course will consider rural school conditions; the field of agriculture in education; the relations of school and community; teachers' institutes; farmers' institutes; extension work; the relations of rural schools; and other topics of importance in rural education. Various instructors in touch with rural school problems will assist in this course.

**D. Elementary Agriculture and Nature-Study.** Lectures and conferences. T Th, 2-5, Rural School House. Miss McCLOSKEY.

Specific lessons in elementary agriculture and nature-study as outlined in the New York State Syllabus for 1911-12 will be taken up in this course. The lessons will be given by the persons preparing subject matter for the Rural School Leaflets of next year. Methods of conducting lessons will be discussed. Text covering subject matter for the complete year's work, as outlined by the Syllabus, will be placed in the hands of teachers and school commissioners before the close of the Summer School. Simple apparatus suitable for use in rural schools will be considered. One lecture will be given on books.

**E. Nature Literature.** Lectures and readings, T Th, 10, Main 392. Mrs. COMSTOCK, and one reading by Director BAILEY.

This course will include a study of the modern nature stories with reference to their relative value for children; a discussion of the writers of nature classics, as Isaak Walton, White of Selborne, Thoreau, and others; a special consideration of nature poetry.

### GROUP III. HOME ECONOMICS

Each of the following courses continues throughout the six weeks of the Summer School. All work is given on the third floor of the main building of the College of Agriculture.

**A. Foods.** Lectures and recitations, M W F, 10. Laboratory, M W F, 11-2. Credit, two hours. Miss ROSE.

A course for establishing a fundamental knowledge of foods. The lectures will include a discussion of the sources, composition, and characteristics of food-stuffs; principles governing the selection of foods and methods of preparing them; food preservation; comparative nutritive value and cost of various foods; selection, planning, and serving of well-balanced meals. The laboratory work will follow the lectures closely and will consist of experiments in determining the characteristics of food-stuffs as these relate to the preparation of food and to practical problems of cookery. Laboratory fee, \$4.00.

**B. Human Nutrition.** Lectures and recitations, T Th, 10. Laboratory, T Th, 11-2. Credit, two hours. Miss ROSE.

The lectures include a discussion of the methods of investigating dietary problems; the practical means of applying scientific principles in planning family and institution dietaries; consideration of special problems of nutrition, as in infant feeding and feeding cases of abnormal nutrition. The laboratory work will include practice in planning and preparing dietaries of various types. Laboratory fee, \$3.00.

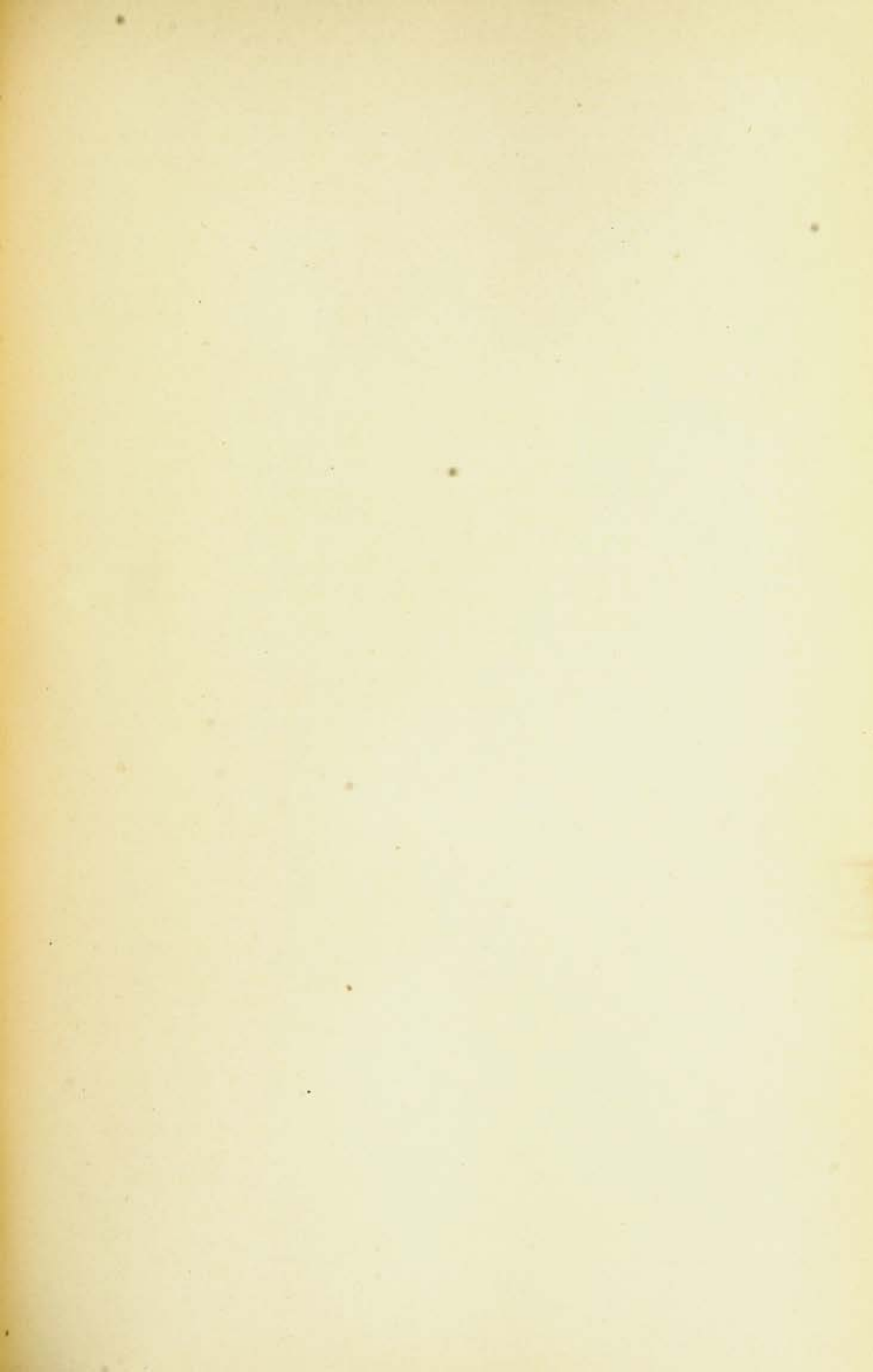
**C. Principles of Household Economy.** Lectures, daily except S, at 8. Credit, two hours. Miss VAN RENNELAER.

(a) Domestic factors in cost of living; waste, social and individual; production and distribution; exhaustion of supply; adulteration; standards of living; extravagance; effects of cost of living; (b) cost of food, shelter, clothing; wholesale and retail prices; marketing; (c) family budgets; distribution of income; keeping accounts; savings and investments; (d) domestic service; wages and hours of labor; cost of employment; relation of the employer to the employed; (e) the house: location, plan, furnishing, keeping clean; amenities of household life.

**D. Household Sanitation.** Lectures, daily except S, at 9. Credit, two hours. Miss VAN RENNELAER.

Household bacteriology; cleanliness of soil, air, water, food; disposal of waste; the laundry; preservation of food supplies; insects as a source of disease; infection; immunity; methods of disinfection; care of the sick; good housekeeping in relation to public health; healthful living to promote efficiency; physical exercise and rest.











OFFICIAL PUBLICATIONS OF CORNELL UNIVERSITY

Issued at Ithaca, N. Y., monthly from July to November inclusive, and semi-monthly from December to June inclusive.

[Entered as second class matter, August 31, 1910, at the post office at Ithaca, N. Y., under the Act of July 16, 1894.]

These publications include the Book of Views of the Campus, for which a charge of twenty-five cents a copy is made, and the following publications, any of which will be sent gratis and post-free on request:

General Circular of Information for prospective students,  
Announcement of the College of Arts and Sciences,  
Courses of Instruction in the College of Arts and Sciences,  
Announcement of Sibley College of Mechanical Engineering and the  
Mechanic Arts,

Announcement of the College of Civil Engineering,

Announcement of the College of Law,

Announcement of the College of Architecture,

Announcement of the Medical College,

Announcement of the New York State College of Agriculture,

Announcement of the Winter Courses in the College of Agriculture,

Announcement of the Summer School in Agriculture,

Announcement of the New York State Veterinary College,

Announcement of the Graduate School,

Announcement of the University Summer Session,

Annual Reports of the President and the Treasurer,

Samples of entrance and scholarship examination papers, special departmental announcements, etc.

Correspondence concerning the publications of the University should be addressed to

The Registrar of Cornell University,  
Ithaca, N. Y.